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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
APPLICATION FOR LETTERS PATENT

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Title : FIXTURE FOR SPINES

6 Claims

4 Sheets of Drawings

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1 to relocate the base (51) to secure the spine again.

2 To overcome the shortcomings, the present invention tends to provide an  
3 improved fixture for a spine to mitigate the aforementioned problems.

#### 4 SUMMARY OF THE INVENTION

5 The primary objective of the present invention is to provide an improved  
6 fixture for a spine. The fixture has two engaging plates each having holes defined  
7 therethrough and reinforced ribs extending between the two engaging plates.  
8 With the structure of the fixture, the positioning effect to the damaged spine is  
9 enhanced.

10 Another objective of the present invention is that each reinforced rib has  
11 an extension extending into the spine such that the fixture is able to remain stably  
12 seated onto the spine.

13 Other objects, advantages and novel features of the invention will  
14 become more apparent from the following detailed description when taken in  
15 conjunction with the accompanying drawings.

#### 16 BRIEF DESCRIPTION OF THE DRAWINGS

17 Fig. 1 is an exploded perspective view of the fixture of the present  
18 invention;

19 Fig. 2 is an exploded perspective view of another embodiment of the  
20 fixture of the present invention;

21 Fig. 3 is a schematic view showing the application of the fixture of the  
22 present invention; and

23 Fig. 4 is a top plan view of a conventional spine fixture.

#### 24 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

1           With reference to Fig. 1, the fixture (10) in accordance with the present  
2 invention has a first engaging plate (11), a second engaging plate (12) and  
3 reinforcing ribs (13) interconnecting the two engaging plates (11,12).

4           The first engaging plate (11) has at least two first holes (111) (two are  
5 shown in this embodiment). The second engaging plate (12) has at least two  
6 second holes (121) (two are shown in this embodiment). Each second hole (121)  
7 has a configuration the same as a numeral eight (8). Each reinforcing rib (13) is  
8 sandwiched between the first engaging plate (11) and the second engaging plate  
9 (12) and has an extension (131) integrally formed with the reinforcing rib (13).

10          With reference to Fig. 2, it is noted that there are three reinforcing ribs  
11 (13) formed between the first engaging plate (11) and the second engaging plate  
12 (12). Screws (20) are applied to correspond to the first holes (111) and the second  
13 holes (121) in both embodiments.

14          With reference to Fig. 3, when the fixture of the present invention is in  
15 application, the operator is able to use the screws (20) to extend through at least  
16 one of the first holes (111) and both of the two second holes (121) depending on  
17 the location of the damage of the spine (30). A gap (132) defined between the  
18 two adjacent reinforcing ribs (13) is provided to allow the technician to have  
19 access to the cartilage in the spine such that the technician is able to remove the  
20 cartilage partially and apply medical powder to treat the damaged spine. It may  
21 be understood that there may be provided with a through hole (not shown) in a  
22 bottom defining the gap (132) so that the medical powder applied to the damaged  
23 spine can engage with the spine directly. Due to the shape of the second holes  
24 (121), the operator not only can adapt to the location of the damage of the spine,

1 the technician can also secure the bolts (20) relative to the second engaging plate  
2 (12). Therefore, even after a long period of time of using the fixture of the  
3 present invention on a damaged spine, concern about the fixture possibly  
4 becoming loose is obviated. Furthermore, the extension (131) of each of the  
5 reinforcing ribs (13) is able to be seated in a groove defined in the spine to  
6 enhance the engagement of the fixture to the spine (30).

7 It is to be understood, however, that even though numerous  
8 characteristics and advantages of the present invention have been set forth in the  
9 foregoing description, together with details of the structure and function of the  
10 invention, the disclosure is illustrative only, and changes may be made in detail,  
11 especially in matters of shape, size, and arrangement of parts within the  
12 principles of the invention to the full extent indicated by the broad general  
13 meaning of the terms in which the appended claims are expressed.